Framing the secondary science curriculum

Play your part in influencing the science curricula of the future

Marianne Cutler

Abstract The Association for Science Education (ASE) invites its members to reflect on the curriculum framework developments outlined in the three articles by the Royal Society of Biology, the Royal Society of Chemistry and the Institute of Physics in this themed edition.

The Association for Science Education (ASE) welcomes this opportunity to introduce our members to the important work of the Royal Society of Biology, Royal Society of Chemistry and Institute of Physics on framing the secondary science curriculum in anticipation of curriculum reforms in the future. Together with the Royal Society, our five organisations work closely together as the Education Policy Alliance to influence science education policy into informed and effective practice. So we are very happy at this stage of development of the curriculum frameworks to support our partners in engaging the views, expertise and experiences of our members to inform further developments, leading, we anticipate, to meaningful and coherent curricula that are enthusiastically owned by our community and recognised by the authorities.

We encourage you to feed back directly to the authors of articles from the professional bodies and invite you to provide your views to ASE (through our website questionnaire – see link at the end of this article), which will in turn inform the work of our Education Group and 11–19 committee, among other ASE groups, who are reflecting on the framework developments to date.

We are particularly interested in your views on:

- the different approaches taken by the professional bodies in drawing up their frameworks, and their suitability for further development towards curricula that could be effectively adopted by science departments to support their planning and teaching for all students;
- the underpinning narratives and how effectively the ‘big ideas of science education’ (www.ase.org.uk/bigideas) work of ASE past president Wynne Harlen, and colleagues, have been developed in these early frameworks;
- how successfully the frameworks bring out the distinctiveness of the disciplines and their practices as well as highlighting the commonalities of approaches to the nature of science;
- how the professional bodies could collectively draw out crosscutting themes so that students make informed connections and progression when encountering these themes at each stage of their learning through different disciplines and contexts;
- how effectively the frameworks would support young people to play an informed role in society and prepare them for an academic, technical or vocational world of interdisciplinary work.

Over the coming weeks and months, we are also working with our partners to provide professional learning opportunities to learn more about these developments, to provide viewpoints and suggestions to support teaching, and to reflect on how these developments may enrich teaching and learning now, in advance of any curriculum reforms. Please check our websites for engagement opportunities at ASE’s major events with presentations and workshops from the professional bodies. For instance, the Royal Society of Biology will run a workshop on 5–19 exemplification at ASE’s Northern Conference (11 November 2018, Sheffield Hallam University), and all three professional bodies will present their work at ASE’s Annual Conference (9–12 January 2019, University of Birmingham) as well as running a workshop together with ASE on the distinctive and common practices of the sciences. There will also be opportunities to engage with these developments through ASE’s weekly online discussion forum, #ASEchat. We encourage you to take up these opportunities and play a part in influencing the science curricula of the future.

The focus of the articles in this edition is 11–16, although the curriculum frameworks will cover 5–19. ASE plans to collaborate with our partners on developing the curriculum frameworks for primary science and their effective transition into secondary. For further information about this and ASE’s other activities referred to in this article, please visit www.ase.org.uk/futuresciencecurriculum.

Marianne Cutler is ASE Director Curriculum Innovation. Email: mariannecutler@ase.org.uk